

REMARKS

Reconsideration and allowance are respectfully requested in view of the following.

Upon entry of this Amendment, claims 1-11 and 31-41 will be pending in the application, with claims 12-30 having been cancelled without prejudice or disclaimer to their reintroduction in a future continuation or divisional application.

Applicants respectfully submit that the amendments to the claims and the subject matter of new claims 31-41 are fully supported by the original disclosure, and that no new matter would be introduced by entry thereof.

Amendments to claims 1, 3, and 4 have been presented to clarify Applicants' invention further. In particular, claims 1 and 4 have been amended to switch their recited crystalline temperature ranges for the A blocks. The crystalline temperature range of claim 1 is now broader than the range recited in claim 4. This amendment is supported in the specification at, *inter alia*, page 6, lines 15-17. Claim 1 has also been amended to delete the expression "at temperatures" in order to clarify the claims further by removing redundant language, which was apparently confusing to the Examiner. The amendment to claim 3 is supported in the specification at, *inter alia*, at page 13, lines 5-11.

New claims 31 and 32 are supported in the specification at, *inter alia*, page 6, lines 23-24.

New claims 33 and 41 are supported in the specification at, *inter alia*, page 15, lines 16-17.

New claim 34 is based on original claim 1, and finds further support in the specification at, *inter alia*, page 7, line 15 to page 8, line 11. New claims 35-40 are based on claims 2, 3, 5, 6, 10, and 11, respectively.

Accordingly, approval and entry of the attached claim amendments and new claims are respectfully requested.

Double Patenting Rejection

Claims 1-11 have been provisionally rejected under the judicially created doctrine of obviousness-type double patenting over claims 1-13 of copending application 09/436,360.

This rejection is traversed.

The claims of the '360 application are silent with respect to the claimed "difunctional oligomer." Applicants respectfully submit that the absence of this feature from claims 1-13 of the co-pending application is sufficient grounds for withdrawal of this rejection.

For these reasons, reconsideration and withdrawal of this rejection are respectfully requested.

Section 103(a)

In view of the above-expressed reasons, a rejection under 35 U.S.C. § 103(a) would be improper. Thus, Applicants respectfully submit that evidence of common ownership is unnecessary.

Section 112, First and Second Paragraphs

Claims 1-11 have been rejected under 35 U.S.C. § 112, second paragraph, on the ground that the language “about” is indefinite.

This rejection is traversed.

This issue has been addressed by the Board of Appeals, which has held that:

"[t]he descriptive word "about" is not indefinite as argued by the Examiner [but] . . . rather the term is clear but flexible and is deemed to be similar in meaning to terms such as "approximately" or "nearly".

Ex parte Eastwood, 163 USPQ 316, 317 (P.O.B.A. 1969).

Even though the term “about” may encompass values slightly above or below a given temperature, this does not render the literal recitation of “above about” or “below about” indefinite. The meaning of the word “about” and its acceptance under relevant case law are not changed by the terms “above” or “below.”

Claims 1-11 have been rejected under 35 U.S.C. § 112, first paragraph on the ground that “substantially solid” has not been defined.

It is respectfully submitted that this rejection is misplaced, since “substantially” is clearly meant to infer the elastomeric nature of the material. Nonetheless, in order to advance prosecution, and because the term “substantially” is redundant in view of the recitation of the term “elastomer” already recited in the claims, Applicants have amended the claims to delete the term “substantially.” It is believed that the scope and meaning of the claims is not affected by this amendment, since a “substantially solid” elastomer is, in effect, a solid. This amendment is made merely to put the claim in better form and not for any reason affecting patentability.

Claims 2 and 3 have been rejected under 35 U.S.C. § 112, first paragraph, on the ground that the specification is allegedly enabling for 2,4-toluene diisocyanate, but not all species of “toluene diisocyanate.” In response, claim 3 has been amended to overcome this ground of rejection. This amendment is being made to advance prosecution, and not as a concession to the rejection or for reasons affecting patentability. Applicants make this amendment without prejudice or waiver and reserve the right to pursue patentability of claims 2 and 3 as originally presented in a separate continuation or divisional application.

Claims 1-11 have been rejected under 35 U.S.C. § 112, first paragraph,
on the following ground:

In view of the language of claims 5 and 6, the oligomer constitutes a reaction product between a diol and diisocyanate; therefore, it is unclear if the language of claim 1 allows for the use of diisocyanate in addition to that used to produce the oligomer or if the language of claim 1 allows for the use of a non-isocyanate reacted diol as the oligomer.

This rejection is traversed.

The rationale for and meaning of this rejection are not clear to Applicants. Claims 5 and 6 specify a preferred oligomer derived from certain diols and diisocyanates, respectively. Further, claims 5 and 6 both depend from claim 1. The claimed "difunctional oligomer" finds antecedent basis in claim 1. Thus, the difunctional oligomer of claim 1 may encompass the "reaction product of at least one diol and at least one diisocyanate" of claims 5 and 6. That is, a diisocyanate may be used (in conjunction with a diol) to produce the oligomer of claim 1.

In the event that this ground of rejection is maintained by the rejection, further explanation of the basis for this rejection is requested with the next written communication from the Patent Office.

Claims 1-11 have been rejected under 35 U.S.C. § 112, first paragraph, on the ground that the specification allegedly lacks enablement for the oligomer. In particular, the Examiner points to page 13 of the specification.

In response, Applicants point out that page 13 of the specification states that MDI and HDI do “not work *well*” (emphasis added). Nowhere does the specification state that MDI and HDI are inoperative or that these diisocyanates do not work. Rather, the specification teaches that MDI and HDI are less preferred than other isocyanates, *e.g.*, TDI. This disclosure provides guidance to the skilled artisan to assist in selecting preferred isocyanates; it does not teach that these or other diisocyanates are inoperative and must be avoided. The Examiner has not shown, and the specification does not teach, that the claims encompass species that do not work so as to be inoperative. Thus, this Section 112 rejection is misplaced.

Claims 1-11 have been rejected under 35 U.S.C. § 112, second paragraph, as indefinite on the following grounds:

It is unclear if the A block containing segment and the B block containing segment are mutually exclusive, since both segments may be crystalline below -20°C and amorphous above 75°C. Under the aforementioned conditions, the requirements of both segments would be met by a single constituent.

This rejection is traversed.

Claim 1 recites that the A block is crystalline below about 60°C, whereas the B block is amorphous at temperatures above about -20°C. Although the A block and B block may share some common features -- *e.g.*, both segments may be crystalline below -20°C and amorphous above 75°C --

this possibility does not mean that a single constituent can meet the *claimed* requirements of both segments.

Stated differently, if a segment A is crystalline below about 60°C, then the segment A is crystalline at temperatures between about -20°C and about 60°C. Such a segment A cannot be "amorphous above about -20°C," and, therefore, cannot be the B block.

Likewise, if a segment B is amorphous "above about -20°C," then the segment B is amorphous at temperatures of 60°C down to -20°C. Therefore, such a segment B is not "crystalline below about 60°C," and, therefore, segment B cannot be the A block

It is respectfully submitted that all claims are in full compliance with 35 U.S.C. § 112, and that the Section 112, first and second paragraph rejections should be withdrawn.

Claims 1-11 have been rejected under 35 U.S.C. § 103(a) as obvious over U.S. Patent No. 4,806,613 to Wardle in view of Oertel, *Polyurethane Handbook: Chemistry - Raw Materials - Processing - Applications - Properties*.

Applicants respectfully traverse the Section 103(a) rejection.

As the Examiner acknowledges, the Wardle '613 patent is silent regarding the use of an oligomer as the linking compound. Oertel does not overcome this deficiency.

The claimed invention is directed to an elastomer. In contrast, Oertel discusses the preparation of crosslinked hardened products. A person having ordinary skill in the art at the time the invention was made would not have been motivated to attempt to make a thermoplastic elastomer by relying on the teachings of an article for making a hardened product. Presumably, the crosslinked hardened product of Oertel would not have elastomeric properties. For this reason alone, a *prima facie* case of obviousness has not been established, and the Section 103(a) rejection should be withdrawn.

Additionally, Oertel teaches making high molecular weight polyurethane-polyols from a two-component system. The first component is a high molecular weight polyurethane. The second component is an adduct of a polyisocyanate to a triol. This two-component system is fundamentally different from the claimed invention for the following reasons.

First, in the claimed invention, the polymer blocks are derived from oxetane, oxirane, and/or THF blocks. Oertel does not teach the use of these blocks. Given this fundamental difference, it is unclear why one of ordinary skill in the art would have been motivated to use Oertel to make the claimed invention.

Second, in the claimed invention, the linking oligomer has two isocyanate-reactive moieties, and is preferably a urethane. On the other hand, Oertel uses as its second (crosslinking) component an "adduct of a

polyisocyanate and a triol.” The second component of Oertel is reactive with the first component, *i.e.*, the polyurethane diol. Accordingly, the second (crosslinking) component of Oertel does not have two isocyanate-reactive moieties. Further, the preparation of the Oertel adduct from a triol would produce a crosslinker, not a linking compound.

Third, Oertel teaches that its polyurethane diols are the first component or main polymer blocks. These diols are high molecular weight polyurethane diols, which do not qualify as “oligomers” as that term is used in the art.

For all of these reasons, the Section 103(a) rejection is misplaced, and withdrawal of the same is respectfully requested.

The claims, as presented herein, are submitted to be in condition for allowance and an early Notice to that effect is requested.

If, after reviewing the above, the Examiner believes any issues remain unresolved, the favor of an Examiner interview is requested and the Examiner is requested to contact the undersigned, by telephone, to schedule same.

It is Applicants' understanding that there is no fee due in connection with the filing of this Amendment. If there are any other fees due in connection with the filing of this application or otherwise relating to this application, please charge the fees to our Deposit Account No. 501324.

Respectfully submitted,

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